OMSC Overview

This entry documents the development of the Army standard object approach. Many of the current Army and Joint model development efforts have embraced the use of Object Oriented Programming (OOP) for their model development efforts. As a result, there has been a proliferation of competing object models. In 1QFY97, the Deputy Undersecretary of the Army for Operations Research (DUSA(OR)) formed an Object Management Working Group (OMWG) to propose an Army Object Management Policy addressing the need for standards associated with Army M&S objects. The proposed policy developed by the OMWG recommended that the Army focus on a high-level object class structure independent of any specific simulation environment. This would allow M&S developers to tailor the high-level object standards to their specific applications through lower-level classes/ instantiation that extend the standards to a specific M&S requirement. The overall impact in the development of standard abstract objects will be to organize future M&S along a common object structure to support interoperability, object reuse, and community understanding of the M&S. The proposed policy was briefed by the OMWG to the DUSA(OR) and was accepted in principle. AMSO subsequently formed the Object Management Standards Category (OMSC) in April 1997 to initiate the proposed policy. The OMSC mission is to:

- develop abstract objects for Army M&S functions,
- identify the minimum set of object methods/public data associated with the object function, and
- link the object methods to standard algorithms/data sources obtained from the other AMSO standard categories.

The OMSC is comprised of M&S practitioners to include those from the following agencies:

- Army Materiel Systems Analysis Activity (AMSAA) -- serves as the OMSC Coordinator;
- Army Research Laborataory (ARL);
- Concepts Analysis Agency (CAA);
- National Simulation Center (NSC);
- TRADOC Analysis Center - Ft. Leavenworth (TRAC-FLVN);
- TRAC- Monterey (TRAC-MTRY),
- TRAC-White Sands Missile Range (TRAC-WSMR); and
- Simulation, Training, and Instrumentation Command (STRICOM).

During the initial stages of developing a policy on objects, AMSO funded the U.S. Army Training and Doctrine Command (TRADOC) Analysis Center in Monterey, California (TRAC-MTRY) to perform the 'Standard Army Modeling and Simulation Object (SAMSO) Study'[1]. The study proposed an approach to object development based on object composition. The OMSC reviewed the SAMSO general approach to object development and adopted it for use in developing Army Standard objects. A paper, entitled "A Component Approach in Developing Object Standards" describing the component approach to model development was drafted and accepted as the OMSC approach.

[1] Buss, Arnold, and Leroy Jackson (September 1997), "Standard Army Modeling and Simulation Objects: Interim Report", US Army TRADOC Analysis Center – Monterey.